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Original Communications.

SCARLATINA.

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DURING the spring and summer, I have observed several short articles in the medical journals which deserve notice; especially one in the *Medical and Surgical Reporter*, written by Dr. William L. Martin, under the caption of Purgatives in Scarlet Fever. The sweeping condemnation of this class of medicines, advocated in that paper, appears to me entirely inconsistent with a sound and rational theory of the disease, whether deduced from a close study of its symptoms, or the pathological condition revealed by post-mortem examination. The disease is inflammatory; in severe cases, eminently so.

In epidemics of scarlatina maligna, and also in malignant sporadic cases, unless the symptoms are promptly and successfully controlled by antiphlogistic and sedative means, the disease hastens rapidly to a fatal termination. In milder cases, whether of sporadic, or of epidemic character, it differs not in kind, but only in degree; and, therefore, whatever medication is resorted to, it should be of the character above indicated. The instances are not rare, that these mild cases, when treated upon the temporizing plan, suddenly change their character, and assume a malignant form; and if they do not terminate fatally at once, are quite sure to be followed by those secondary forms of the disease which are so much dreaded by every physician who has had experience in their treatment. And here I wish to say a word in reference to the vexed question of secondary attacks. Scarlatina simplex, which, on its invasion, does not extend beyond the true dermoid tissue, if it continues unabated four or five days will extend to the pituitary and epithelial membranes lining the nares, fauces and auditory passages, one or all of them. When it does so, it is no longer the simple eruptive fever as it first appeared; but, added to that, is inflammation of those membranes and the subjacent parts, which hastens rapidly to ulceration or the formation of abscess. Now, when these symptoms occur in conjunction with the rash, I do not believe the patient is liable to a secondary attack; but the rash appearing alone does not protect against a subsequent attack of what was formerly called throat distemper; neither does this latter work an immunity against the rash.

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"The disease first appeared in New England in 1735. Its first appearance was in Kingston, New Hampshire, from which place it continued to spread, east and west, for three years, and was, undoubtedly, the most malignant and fatal epidemic that ever visited the country. It obtained the name of canker rash."

It prevailed in England and on the Continent at the same time, and was the epidemic described by Dr. Huxham under the head of Malignant Ulcerated Sore Throat.

Its periodic visitations have been continued both in Europe and in this country until now—sometimes assuming a very malignant and fatal character, and at others, a form so mild as scarcely to require medical treatment. Such and so ample have been the opportunities offered for its study, both in regard to its nature and its treatment. And what does medical science teach us to-day? I fear, quite as much error as truth. In one instance we are told that "a small dose of castor-oil was administered in a mild case of the disease, and it soon became unmanageable, and ran on to a fatal termination." While induction fairly applied is a safe process of reasoning, it is hardly safe to draw inferences from one or a few facts, unless those facts are sufficiently numerous and uniform to establish a rule. Some have taken castor-oil and died; while hundreds have taken it and lived. Such reasoning may be summed up in the following formula: "*post quam, ergo propter quam.*" Others, and they are many, tell us that bleeding is not a safe remedy, because it reduces the *vis vitæ*; all of which is required to resist the wasting power of the disease. This would be a valid argument, if its only effect were to depress the powers of life without exerting a controlling influence over the disease. But if the loss of five or six ounces of blood from a child three or four years old arrests in a large measure the congestion and subsequent inflammation and fever, it is a gain which can be secured in no other way. It places the patient in a condition to be benefitted by other remedies.\* Others object to the free and liberal use of cold water to the surface, because of its tendency to repel the eruption. This would also be a valid objection, if the following assumptions upon which the objection rests were established facts: 1st. That the eruption constitutes of itself, or contains the *causa morbi*. 2d. That it is a movable cause and, if removed from the skin, will concentrate its action upon some internal and more vital organ; and, finally, that it can only be safely removed from the system by the process of desquamation. I submit, with all candor, that not one of the above positions can be maintained. Because cold water reduces the dry, sharp heat of the skin, and fades out the deep scarlet hue, and removes the mulberry eruption, with all its painful sensations, it does not follow that a retro-

\* General depletion alone is here referred to, and it should be done as soon as possible after the invasion of the disease. Local bleeding by leeches, even for local tumors, has never, in my experience, been productive of anything but evil. The bites are always slow in healing, and their constant tendency is to result in eschars. The same is true of blisters, which, while they do no good, frequently result in serious evil.

cession has at all taken place; neither that a repellant power has in the least degree been exercised by the water. With as much propriety might it be said that because cold water removes the erythema and pain from a slight burn, the injury had thereby been repelled to some internal organ. All these are steps accomplished in the direction of a cure.

And so of cathartics; it is said they weaken the patient, and tend to cause a retrocession of the eruption, and their direct effect is to irritate, inflame and ulcerate the bowels. On the contrary, a judicious use of these medicines is the proper and successful method of counteracting these evils. I do not believe that in one case in twenty the mucous membrane of the bowels is one of the organs or tissues primarily implicated in an attack of scarlatina.\* "The raw, red appearance of the tongue," which has been cited as symptomatic of an irritated and inflamed condition of the bowels, is not so, but is the result of the local action of the disease upon that organ and the adjacent parts. It is in the latter stage of the disease, in the low, typhoid stage, if at all—when the mouth is filled with sordes, when the eschars have sloughed and left foul and gangrenous ulcers that yield a fœtid, ichorous and bloody discharge, that the bowels become tympanitic, and afford unmistakable evidence that they are involved in the disease. In cases extreme as this, no practice within my knowledge affords as reasonable hope for recovery as a mild, mercurial cathartic (calomel). The favorable action of this is promoted by enveloping the body from the hips to the arm-pits with several folds of domestic wetted with cold water, applied after the manner of the hydropaths. It is well to repeat this process so long as the abnormal heat continues.

A detailed description of the different forms of disease, through their different stages, is not embraced in my present design; but merely to show my views of its character or type, and, by inference, the mode of practice, and the remedies required for its cure. Its classification, by nosologists, with inflammatory diseases is, so far as I know, generally received by the profession; but no uniform mode of practice based upon this classification has been the result. This may be in part owing to an imaginary mystery which is thrown round the subject; viz.: that the disease is specific, the result of a specific cause, and, therefore, demands a treatment by specifics. This is undeniably a fallacy, and ought to be discarded. The disease is, indeed, specific; but the inference is the fallacy.

It is true, belladonna at one time obtained some reputation in this direction, both as a prophylactic and a remedy; but experience has

\* Mr. Armstrong says, "You almost invariably find proofs of inflammation of the fauces, extending down the larynx, trachea and bronchi. In nine cases out of ten, the air-passages are inflamed." And the accuracy of this statement is borne out by Mr. Hamilton, in his observations on the epidemic in Edinburgh, in 1832. See *Edinburgh Medical and Surgical Journal*, vol. xxix. "The comparative frequency of inflammation of the mucous membrane of the bowels, dwelt on by Dr. Armstrong, is not admitted to the same extent by other observers."

failed to justify its claims. There are but two methods of treatment worthy of consideration; the one may be called active, the other passive. In the former, a vigorous antiphlogistic and sedative treatment is instituted to arrest the disease; or, failing to do this, to so modify and control the symptoms that it may pass with safety to a favorable termination. In the latter, the desideratum is to obtain and retain upon the surface a full eruption, until the period arrives for desquamation. The position is taken that the disease "must run its course," and, therefore, requires a sustaining treatment. Upon this subject there is room for a difference of opinion; and it can hardly be conceded that the disease must of necessity pass through all its stages; but if it were so, that treatment will most preserve the vital forces which most promptly and effectually controls the morbid actions. It is not the remedies, but the disease that prostrates. My motive in writing this paper was not so much to discuss the philosophy of the disease, as to advocate an active treatment for its cure; and the only argument now remaining must be drawn from a careful collation of facts. In order to contribute something to this end, I will give the result of my own observation and experience. In the year 1832, in the months of May, June, July and August, I treated 247 cases, most of which were of a very malignant type. My field of practice at that time embraced a part of Westbrook, Gorham and Windham, in the County of Cumberland, Me. I shall give the history of a few of those cases, premising it with a general plan of the treatment pursued.

In all cases where there was active inflammatory action, whether the eruption had or had not made its appearance, bleeding was the first prescription. The depletion was graduated by the effect it produced on the patient, and continued until the pulse became soft; and, if the eruption was out and quite florid, until it began sensibly to fade out. A moderately active cathartic, of jalap and calomel, or compound jalap powder, was next administered. I prefer the former. In all severe cases, the swellings about the throat and the anginose affection require early and particular attention. Folds of linen or domestic saturated with cold water were kept constantly applied to the neck and throat, so as effectually to keep down the temperature, and retard the swelling of these parts. In many cases, the water was slightly acidulated with vinegar; but this, while its effect upon the swellings was good, seemed rather to irritate than soothe the eruption.

And here I would observe, by way of parenthesis, that, since reading Dr. Adinell Hewson's book upon the use of clayey loam as a topical application in surgery, I believe it would better fulfil the indication in these cases than any other application. Wetted down with cold water, it would longer retain its moisture and temperature, the two qualities particularly requisite in these applications. I imagine, too, that the anodyne and sedative properties of the humus



connected with these earths, would render them much more efficient agents than the water, however it might be applied.

In variola, where it is desirable to protect the skin, especially upon the head and face, from the disfiguring effects of pustular supuration, might not the same means be used with happy effect? Perhaps nothing could more effectually prevent the congestion which is the first step in pustular formation than such an application. It would protect from the irritating effects of air and light, and secure a uniform temperature at any degree that might be desired.

But to return from this digression. Cloths, dipped in cold water and wrung sufficiently to prevent much drip, were kept constantly applied to the surface of the body and limbs, and changed so often as to secure a uniformly cool temperature. Under this treatment, quiet and rest were substituted for the febrile restlessness and burning of the skin. Constant care and watching were necessary to enforce this part of the treatment; otherwise, if neglected, the fever and eruption would return with increased intensity.

It only remains to notice the treatment pursued in the ulcerated throat which attended almost every case. A mixture of cayenne pepper, salt and vinegar, in water, was applied to every part of the throat by means of a swab. It was passed through the isthmus of the fauces back of the swollen and ulcerated tonsils so as to cause the patient to gag, by which action whatever of viscid mucus or sanious pus lodged there was thrown forward into the mouth and was wiped out. The importance of this part of the treatment is so apparent that it will not be neglected. Of the above mixture, the patient swallowed, every few hours, from a teaspoonful to a table-spoonful, according to the age, as a febrifuge and cordial.

The above statement is sufficiently full to explain the general principles, and all necessary details of my practice in 1832. With very few exceptions, no other medication was required. The three following cases, for reasons which will be given, did not receive the full benefit of the treatment.

Case 1st, May 8th.—William Brackett, 9 years old, seized with vomiting at 2 o'clock, morning. Vomiting continued half an hour, and was succeeded by pain in the head and back; great restlessness; pain in the throat, and intense fever and burning of the skin. At 8 o'clock, when I first saw him, a deep scarlet eruption had established itself over the entire surface, to the ends of the fingers, and so great was the congestion or swelling of the skin that it was difficult to entirely close the hand. The dorsum of the tongue, especially toward its base, was covered with a heavy, cream-colored coat; while the tip and edge were red and irritable. The tonsils, uvula and all the soft parts of the throat were greatly swelled, and of a deep mahogany color, showing distinct ash-colored spots, which gradually extended till they commenced to slough. The swelling of the parotids and all the glands at the angle of the jaws was equally sudden.

This was the case that, in my region of practice, ushered in the epidemic, and it was the first that came under my observation. I felt that I was exploring an unknown region, full of danger and uncertainty, and therefore must proceed with great caution. I feared to bleed, but in all other respects he was treated vigorously, according to the plan above indicated. His recovery was slow. The ulcers in the throat did not heal readily, and the swelling of the parotids and the glands about the throat remained for several weeks, but finally disappeared without suppuration. After the eruption had subsided and desquamation had, in part, taken place, the skin remained hot and dry, and the pulse hard and frequent. An ichorous discharge from the pituitary membrane excoriated the nostrils and lip. The bowels were constipated, and the secretion from the kidneys became small and of a dark brown color. Mercurial cathartics, with powders of nitrate of potassa, ipecac and camphor, and cremor tartari, whcy constituted his medication. His recovery was complete.

The error of treatment in this case was the neglect of bleeding. Had this been performed at the onset, it would, with the treatment pursued, not merely have controlled, but subdued the inflammatory diathesis, and all that grave train of symptoms known as the sequelæ of the disease would have been prevented.

From the date of this case, the disease spread rapidly, and a large majority of the cases were of equal severity with this. Bleeding was now considered a matter of prime necessity in the treatment; and in no case where the attack was sudden and violent was it omitted; and in no case where it was performed was there reason to regret it. The recoveries were considered rapid, occupying from ten to seventeen days; and they were perfect, as no trace of any indisposition referable to the disease remained in the system.

The next case I shall present was fatal; and to it I shall append some remarks.

June 6th.—Joseph Emery, 4½ years old, well grown, healthy and vigorous, was seized with a fit of vomiting at 5 o'clock, morning. His symptoms were so nearly like those in the case above that it is unnecessary to detail them. The vomiting soon brought out the rash, which was general, and of the same malignant character as in Brackett's case. He was bled, had a cathartic, and cold water was applied to the surface of the body and extremities until the heat was reduced to the natural temperature, and the rash, with the puffiness of the skin, was quite removed. Cold cloths were directed to be kept constantly applied to the swellings about the neck and throat, and also to the orifice of the bleeding, which, by the way, was a necessary precaution in all cases where there was any abrasion or destruction of continuity of the skin; otherwise, a dry gangrenous action would set in, and dangerous eschars would be the result. I left him at 9 o'clock, in a very favorable condition, directing the application of the water sufficiently to keep down all increase of

heat and redness of the skin. The infusion of pepper to be given every four hours.

Eight o'clock, evening.—All directions for treatment during the day had been entirely neglected, and every symptom had returned with increased intensity. For an hour and a half, I gave my undivided attention and effort to redeem the advantage which had been lost during the day. His condition was again entirely satisfactory. The necessity of good nursing had been so thoroughly vindicated that I had no doubt of an entire observance of all my directions in the future.

7th, 9 o'clock, morning.—The report of last evening is equally applicable to this morning. No effort had been made during the night to control the disease. The eschars in the throat were sloughing, and every effort to speak or swallow was intensely painful. The membrane of the mouth was parched and dry, and the teeth covered thick with sordes. It is unnecessary to continue the daily reports, as they would only show the uninterrupted progress of the disease to a fatal termination on the 12th. It is, however, necessary, in defence of the treatment, to state the following facts. There were two other cases, older brothers of this boy, in progress in the same house, at the time of his attack. Their ages were, respectively, thirteen and eleven. Their disease was of an equally severe and malignant type. The prescriptions in all these cases, allowing for the difference in age, were precisely similar. The difference in the result was entirely attributable to the fact that these boys were nursed by a paternal aunt, who was a sensible woman, and every direction was implicitly obeyed; while the youngest was nursed by his mother, who was a timid yet very obstinate woman, and no persuasion could induce her to do a thing in opposition to the boy's will. The treatment, therefore, in his case was rendered entirely abortive; while in the others it resulted in a rapid and perfect recovery.

I will now give a case of scarlatina complicated with croup.

June 18th.—Samuel Thomas, a healthy, vigorous boy, two years and three months old. Has been slightly indisposed for the last twenty-four hours; is fretful, has slight fever; pulse 98, and rather hard; skin dry; tongue not coated, but of a mottled, brownish appearance at the base; no perceptible swelling, but increased redness of the tonsils and uvula. Scarlatina was in the house, or his case would scarcely have excited attention. He had an emulsion of castor-oil, spts. terebinth. and spts. nit., after the action of which his symptoms were improved. A faint scarlet eruption appeared upon the neck, breast and body. A cooling diaphoretic mixture was prescribed, and continued to the fifth day of the disease, when desquamation commenced to take place. The skin still continued dry and rather hot, but the redness and eruption had disappeared. On the night of the fifth, a hoarse cough came on, and in the morning his case was

unmistakably croup, or cynanche trachealis. He died the following night. Up to his attack of croup, it will be seen that he was treated entirely upon the expectant plan. It was a sad failure. Had he been bled at first and taken an active cathartic of calomel, I have no doubt the eruption would have come out freely and fully, and the result would have been different. The eruption once fully established on the skin and in the throat, and all the internal organs are relieved. It can be there successfully treated without the risk of retrocession.

The following case, though occurring four years subsequent to the epidemic, is of interest, as showing a rare form of attack. I find in my memoranda it is set down as scarlatina complicated with congestion of the brain. While I shall incidentally notice another case occurring in the same family and at the same time, it is the boy's case particularly to which I would direct attention.

1836, May 14th.—Was summoned to visit two children, the only children of E. Varney, a girl and a boy. Their ages were nine and seven years. The girl was the elder. The afternoon was pleasant, but the ground was damp and cold. They were at play in a grove, a few rods from the house. The boy suddenly fell down in a convulsion. The cries of the girl speedily brought assistance from the house; but before the boy was removed, the girl was seized with a fit of vomiting. I saw them at 5.30 o'clock, about two hours after the attack. There had been no sign of consciousness or sensibility exhibited by the boy from the time of his attack. His face was pallid, surface cold, and the pulse at the wrist only occasionally perceptible by a feeble vibration. In short, his appearance was entirely cadaverous. His friends had been actively engaged, using all the means within their power to restore warmth, sensibility and consciousness, but to no good purpose. The vomiting, in the case of the girl, had been immediately followed by a copious eruption, which unmistakably indicated scarlatina; and upon examining the throat, this opinion was abundantly confirmed. In the epidemic of 1832, many cases were ushered in with convulsions. I therefore believed the boy's attack to be of that character, and determined, if possible, to bleed. The temporal artery was cut, but only a few drops of blood seemed to exude from the skin. The head was depressed, and friction with hot flannels continued. After a few minutes, the artery of the other temple was cut. The blood dripped from this slowly, but evidently coming from the vessel. The flow increased, and now it dripped from both temples. After about five minutes, it was thrown out by a perceptible jet, and when about eight ounces had been taken, consciousness was somewhat restored. He knew his mother, and called her by name. He was now able to swallow, and occasionally a teaspoonful of the pepper mixture was given him as a stimulant and cordial. The friction was continued until a comfortable warmth was restored to the surface. A cathar-

tic of calomel was directed to be given at bed-time, or sooner if the head should become hot and painful; and, in that case, cloths to be applied wet with cold water.

15th, 9 o'clock, morning. The boy's condition is much improved. The eruption is out upon the neck and breast full, and more faintly upon the body. Pain and heat of the head, redness and swelling of the tonsils, with difficult deglutition. The eruption continued to extend for three days. All these symptoms gradually subsided, and on the seventh day desquamation took place. His recovery was complete in fifteen days. In the girl's case, there was no complication to distinguish it from an ordinary scarlatina anginosa. The swelling, eschars and sloughing retarded her recovery beyond that of the boys.

I have remarked above that during the epidemic of 1832 I treated 247 cases. Of these, 5 were fatal, or a fraction ( $\frac{5}{247}$ ) over 2 per cent. Since that time, in several milder epidemics, and in sporadic cases, I have found the same treatment equally successful.

A striking peculiarity will be observed in the two first and last cases I have given; that is the suddenness of the attack. In very many of the cases, and those were of the most malignant character, the premonitory symptoms, such as chills, alternate flashes of heat and cold, headache, pains in the back and limbs were entirely wanting, or unobserved. No complaint was made until the patient was suddenly struck down and overwhelmed with the disease. Cases occurred where children in a schoolhouse, standing in their classes for recitation, were suddenly seized with convulsions, or syncope, or vomiting. Two such cases I witnessed before their removal.

*Austin, Sept. 16, 1873.*

THE AIR-BALLOON IN CHILDBIRTH.—The following are the conclusions of M. Vinoy (*France Médicale*, Aug. 9, 1873) with regard to the employment of the air-balloon in accouchements:—

1st. The balloon, introduced into the vagina, brings on uterine contractions.

2d. It will be found, either when employed alone or in conjunction with other procedures, to be a useful application in producing abortion and premature delivery.

3d. In cases of hæmorrhage of moderate severity, such as characterizes *placenta prævia*, the balloon serves as a tampon, and at the same time tends to bring on labor.

4th. It is especially applicable in those cases in which labor is delayed by a want of activity in the uterus. It restores the pains when they have ceased, and augments their intensity when they already exist, both during the stage of dilatation of the os, and during the expulsion of the fœtus.

5th. The application of the balloon is perfectly simple, and entirely exempt from any danger of accident.

## Progress in Medicine.

### REPORT ON OPHTHALMOLOGY.

By O. F. WADSWORTH, M.D. Harv.

[Concluded from p. 456.]

#### PATHOLOGY AND TREATMENT.

1. Ueber amyloide Degeneration der Bindehaut des Auges. **LEBER.** Archiv f. Ophthalmologie, Bd. xix. Abth. 1.
2. On Conjunctival Transplantation from the Rabbit. **WOLFE.** Glasgow Medical Journal, Feb., 1873.
3. Operations-verfahren gegen narbiges Entropion und Trichiasis des Unterlides. **SCHNELLER.** Archiv f. Ophthalmologie, Bd. xix. Abth. 1.
4. Fragments d'Ophthalmologie. De la greffe dans la traitement de l'ectropion. **MARTIN.** Ann. d'Oculistique, Mars-Avril, 1873.
5. Improved Lid-Forceps, especially for the operation of Entropium. **KNAPP.** Archives of Ophthalmology and Otolaryngology, Vol. iii. No. 1.
6. Studien ueber Entzündung der Froschcornea. **PFUNGEN.** Med. Jahrbücher, Hft. 1, 1873.
7. Ueber die Regeneration der Hornhaut. **REICH.** Monatsbl. f. Augenheilk., Juli-Aug., 1873.
8. A Peculiar Form of Iritis which occurs in the Children of Gouty Parents. **HUTCHINSON.** Lancet, Jan. 4, 1873.
9. Ueber seröse Iriscysten. **FEUER.** Monatsbl. f. Augenheilk., Apr.-Mai, 1873.
10. Ueber cystoide Entartung der Iris. **VON WECKER.** Monatsbl. f. Augenheilk., Sept., 1873.
11. Zur Kenntniss der Tuberculose des Auges. **PERLS.** Arch. f. Ophthalmologie, Bd. xix. Abth. 1.
12. Der Hohlchnitt, eine neue Staar-Extractions Methode. **Ed. v. JAEGER.** Wien. med. Zeit., No. 27 et fol., 1873.
13. Die Subconjunctival extraction. **VON HASNER.** Wien. med. Wochensch., No. 36, 1873.
14. Zur Lehre von der Embolie der Arteria centralis Retinæ. **MAUTHNER.** Med. Jahrbücher, Hft. ii., 1873.
15. Embolism of Branches of the Central Retinal Artery. **KNAPP.** Archives of Ophthalmology and Otolaryngology, Vol. iii. No. 1.
16. Observations on Defects of Sight in Diseases of the Nervous System. **H. JACKSON.** Ophthal. Hosp. Rep., Vol. vii. part 4.
17. Beitrag zur Kenntniss der Entstehung der sogenannten Stauungspapille, &c. **MICHEL.** Arch. f. Heilkunde, Hft. 1, 1873.
18. Cases illustrative of the Use of the Ophthalmoscope in the Diagnosis of Intracranial Lesions. **WEIR MITCHELL and Wm. THOMSON.** Am. Jour. Med. Sci., July, 1873.
19. Ueber ein eigenthümliches Verhalten der Corpuscula amyloacea im atrophischen Sehnerven. **LEBER.** Arch. f. Ophthal., Bd. xix. Abth. 1.
20. Intra-ocular Enchondroma, of twenty-two Years' Growth. **CHISHOLM.** With a description of the Microscopic Condition of the Tumor. **KNAPP.** Arch. of Ophthalmology and Otolaryngology, Vol. iii. No. 1.



1. Leber, in the paper above referred to, describes, in great detail, a case of amyloid degeneration of the conjunctiva. The patient was a young man, otherwise healthy; the disease had existed less than five years; within two years from the commencement of the disease, and again a year later, portions of diseased tissue had been removed. The degeneration involved the greater part of the conjunctiva in both eyes, the conjunctiva of the sclera and especially of the fold being most affected. The thickening was caused partly by the presence of coarse, brawny nodules, partly by a more diffuse, brawny infiltration, both of yellowish, semitransparent appearance, and resembling somewhat the growth in diffuse trachoma. A portion of the strongly folded conjunctiva was removed with scissors, and much of the infiltrated masses beneath scooped out with Daviel's spoon. The degenerated parts consisted of numerous amyloid bodies of various size and shape in a clear, fluid, basis substance. In the scleral conjunctiva, amyloid bodies were imbedded in the adventitia of the smaller vessels, but the wall proper of the vessels was generally free. To some of the finer nerve branches, amyloid bodies were also attached. In other parts of the conjunctiva, were what appeared to be bundles of swollen, altered connective tissue, giving the amyloid reaction, and here the walls of the bloodvessels were thickened, amyloid. The amyloid granules and the degenerated connective-tissue bundles were enclosed in endothelial-like sheaths. Leber discusses this case in connection with three similar cases which have been reported in the last two or three years, and concludes that—

I. Amyloid degeneration appears in the conjunctiva of the lids, and also in the tarsus, as a purely local disease.

II. Clinically, it may be distinguished from trachoma.

III. The process consists in a development of amyloid bodies, or an amyloid connective tissue, both of which are enclosed by protoplasmic sheaths containing nuclei. From the latter, the growth of the tissue appears to issue.

IV. The tissue of the amyloid growth of the conjunctiva has, therefore, in structure, and perhaps also in development, many analogies with normal connective tissue.

2. Wolfe narrates two cases in which he successfully transplanted a flap of conjunctiva from the rabbit to man. The first was that of a workman, in whose left eye the conjunctiva of the whole lower lid and of the corresponding portion of the globe, and a portion of the cornea had been destroyed by a burn. The result was the complete attachment of the lower lid to the globe, the edge of the lid reaching to the upper border of the pupil. In this state of things, there was not opportunity for an autoplasmic operation, and it occurred to the author to try a conjunctival flap from the rabbit. He chose for the purpose the inner portion of the conjunctiva which covers the membrana nictitans, on account of its greater vascularity. Patient and rabbit were both chloroformed, the lid was carefully dissected free, the conjunctiva was removed from the rabbit's eye, and fixed by sutures so as to cover the raw surface on the man's lid. The only dressing was dry lint and a bandage. The next day, there was not more inflammation than was to be expected from the extent of the dissection; the transplanted flap had a greyish aspect. Warm fomentations were ordered. On the following day, there was complaint of much pain

and lachrymation. Any touch of the lid was painful. The new conjunctiva had, however, except in a few isolated spots, lost the greyish tint of the previous day, and was red and shining, at some spots offering the appearance of exuberant granulations. From this time, the swelling was checked and gradually diminished. On the fourth day after operation, the new conjunctiva was everywhere adherent, and the sutures were removed. At the end of eight days, the man returned home, the lid free everywhere, the movements of the eye good, the transplanted conjunctiva having preserved its vitality everywhere, except in one little grey spot the size of a pin's head. A few weeks later, an iridectomy behind the upper, clear part of the cornea restored vision. The second case was similar to the first, but the symblepharon was not quite so extensive. The operation was done in the same manner, only, instead of trimming off the superfluous portion of the transplanted conjunctiva after the sutures had been applied, it was left hanging. The different behavior of this loose bit of conjunctiva and that which was held in place by sutures could be easily followed from day to day. The free portion remained grey and loose eleven days after the operation, while the attached portion had resumed almost wholly its natural brilliancy. In this case, there was no sign of irritation of the globe following the operation, and the movements of the eye became free.

3. Schneller recommends a new operation for cicatricial entropion and trichiasis of the lower lid, which he has found to render excellent service. Two incisions are made through the whole thickness of the skin, parallel to the lid edge, and two to four mm. apart, the upper incision one and one-half to two mm. below the edge of the lid. These horizontal cuts are united at their ends by oblique incisions. The piece of skin thus included is left in place, care being taken to avoid injuring it, during the operation, in any way. The surrounding skin is loosened at the edges, just enough to make it a little movable (one-half mm.), and the upper and lower edges of the wound are drawn together *over the included bit of skin* by sutures. A pad of lint, placed over the eye, is retained by a bandage, and changed at the end of twenty-four hours. In four days, the sutures are removed, but replaced by strips of isinglass plaster, which, with the bandage, remain a day or two longer. Schneller found, some time after the operation, a firm cicatrix, somewhat thicker than the surrounding skin, which was movable over the underlying muscle. It would be interesting to know what becomes of the portion of skin thus buried. A similar operation, on the upper arm of a man, undertaken in the hope of later investigation of this point, did not succeed.

4. Martin lays down very exact rules for the treatment of various stages of ectropion by different forms of skin-grafts, the size and time of application of the grafts varying according to the conditions existing. It does not clearly appear, from the paper, that these rules are based on sufficient practical experience.

5. Knapp has modified Snellen's entropium forceps by enlarging the half-ring, so that when the forceps are closed it surrounds instead of lying upon the plate, and thus gives more room for operation. The direction of the handle is also changed, so that the same instrument may be conveniently used for either eye.

6. Pfungen, from investigation of keratitis artificially produced,

takes the side of those who contend that the corneal corpuscles proliferate in inflammations of the cornea. In traumatic keratitis, he found, occasionally, corneal corpuscles, nearly divided into two parts by a fissure, and containing a nucleus in either part; and, after treating the corneas both with gold and silver, some corpuscles, generally such as contained many nuclei, were seen to be crossed by lines of silver precipitate, which pointed to a division of the cells and the presence of cement between them. All intermediate forms between corpuscles and wandering cells were present, and, in parts in which the increase of cells was most active, no unchanged corpuscles could be discovered.

Many experiments were made to determine the influence of the nervous system on the production of keratitis. Of six cases of simple section of the trigeminus without injury of the Gasserian ganglion, only one showed inflammation of the cornea. In this, there was a small white point of opacity near the centre, consisting of small, closely aggregated cell elements, the rest of the cornea being comparatively clear. When Gasser's ganglion was irritated, similar opacities were frequently found. These opacities lay in the anterior layers of the cornea, while in traumatic keratitis the posterior layers were chiefly affected. After removal of the eyelid in frogs, the cornea remained healthy during the four to ten days they were under observation; the same was the case when the trigeminus was cut, but injury of Gasser's ganglion caused, generally, great inflammation. Neither removal of the medulla oblongata, nor section of all the cerebral and spinal nerves on one side, nor extirpation of Gasser's ganglion in frogs, prevented inflammation from following a corneal wound. Neither the influence of the central nervous system nor that of the Gasserian ganglion would, therefore, seem absolutely necessary for the production of a traumatic keratitis.

7. Reich sought to determine, experimentally, the advisability of operative interference in cases of permanent opacities of the anterior layers of the cornea. To this end, he removed portions of the anterior layers of the cornea in rabbits. The amount of irritation following was generally not great; the newly formed tissue, which only partially filled the excavation made in the cornea, showed, by oblique illumination, very little lack of clearness at the end of several months, but the ophthalmoscope showed irregular astigmatism. The cause of the astigmatism appeared to be due, in part, to the imperfect transparency of the new tissue, in part to the unevenness of the anterior surface. He thinks the results of his experiments should not contraindicate attempts to remove opacities of the cornea in certain cases.

8. Hutchinson describes a peculiar form of iritis which occurs at an early age in the children of gouty parents, and differs from other forms of arthritic iritis in being insidious and persistent rather than paroxysmal. Posterior synechiæ form without any attack of acute inflammation, the pupil is gradually occluded, and there is effusion behind the iris. In the later stages, opacities in the vitreous usually form. One eye is generally attacked first, and its vision is much diminished before the other is affected; ultimately, he believes that both eyes are almost always implicated. Only in one case has he observed entire loss of sight from the disease. The eye usually feels hot and uncomfortable at the time that adhesions are forming, and there may be slight

congestion of the conjunctiva, but the attack is, for the most part, painless.

9. Feuer describes a serous cyst of the iris, apparently following a wound of the cornea, which he convinced himself was formed in the tissue of the iris itself, since the iris-tissue could be traced under the microscope directly into both walls of the cyst; the outer surface of the front wall showed no epithelium, and the outer surface of the posterior wall was covered by the uvea. The interior of the cyst was lined with epithelium. The epithelial lining he believes, with Rothmund (*JOURNAL*, Nov. 14, 1872), was due to proliferation of a fragment of corneal epithelium carried into the iris-tissue when the wound occurred. He admits that serous cysts may arise from folding and adhesion of the iris, so as to form a closed sack, but cannot admit Wecker's theory that all serous iris cysts are formed in this way.

10. Von Wecker re-asserts his theory, relates several cases of blows on the eye, in which, without wound of the cornea, the lens was dislocated and the papillary edge of the iris folded backward, and, later, the patients appeared with extensive cystic degeneration of the iris. He denies that the appearances seen by Feuer prove that there was not in his case a folding and adhesion of the iris, and claims that they would have been equally present if the cyst were formed by such folding.

11. Perls has examined a case of general miliary tuberculosis in an infant, in which miliary tubercles were found, both in iris and retina. In the former position, they have before only once been observed; in the latter, never. For, although Bouchut asserted (*Gaz. des. Hôp.*, 1869, 1 and 2) that he had observed tubercles in the retina, both with the ophthalmoscope and at the autopsy, the descriptions he gives of the ophthalmoscopic and histological appearances are decidedly those of fatty degeneration, not of tubercle. The father of the infant had had syphilis, but was free from its symptoms since some time previous to his marriage; neither the child nor the mother had shown any signs of infection. At six months, a yellowish-white nodule appeared on the iris of the left eye, with slight inflammatory symptoms. The cornea soon became infiltrated, opaque, there was exudation in the iris and anterior chamber, and the cornea and sclera over and near the nodule were bulged forward. The affection was regarded as a gummy tumor, and treated as such, but infiltration of the upper part of one lung appeared, and with fever, and, finally, convulsions, the child died. Tubercles, recent and older, were found in the brain and most of the thoracic and abdominal viscera. The tumor of the iris was found to have pressed forward against the cornea, and backward it involved the ciliary processes. In great part, it appeared to be an inflammatory infiltration, but it contained, also, a number of miliary tubercles, characterized by the histological arrangement described by Wagner and Schüppel, namely, one or more giant-cells, moderately large cells, with two or three nuclei, and lymphoid cells, lying in a sort of meshwork formed by paler cells of very various form, with slender processes and surrounded by lymphoid cells. This arrangement was more plainly seen in the nodules of the ciliary processes, which appeared more recent than those in the iris. In the retina, the tubercles were situated in the anterior layers; the internal limitans was pressed forward by them, the finely granular

layer backward, and the radiating fibres (Müller's) pushed apart and crowded together at the sides. In the choroid, where tubercles have been so often found, none were present. The affection of the cornea appeared to be simply inflammatory; and the general infiltration of the iris, Perls regards as undoubtedly secondary to the tuberculosis.

12. Von Jaeger, who has been hitherto an advocate of the flap operation for cataract, now describes a new operation, which has given good results in the few cases he has tried it. The knife he uses is somewhat like Beer's, but is curved on the width of the blade, the curve being that of a cylinder whose axis is parallel to the back of the blade. The section does not vary much in position from Graefe's section, unless it is desired to avoid iridectomy, then it is made lower. He speaks strongly, however, in favor of iridectomy, whatever mode be employed, as offering better chances of success, though not equaling the best possible result without iridectomy. The advantages he claims for the operation are:—1. Formation of, as nearly as possible, a linear wound of size sufficient for the exit of the largest cataract. 2. Possibility of fixing the globe during the whole section without the use of forceps. 3. More or less complete retention of the aqueous till the completion of section. 4. The comparatively small increase of intra-ocular pressure during the section. 5. The relatively easy exit of the lens. 6. The increased comfort of after-treatment for the patient.

13. Von Hasner has modified the flap operation for cataract. He makes the section downward, as before, but in the sclero-corneal border, and forms at the same time as large a conjunctival flap as possible; does not divide the conjunctival flap entirely, however, but leaves a bridge, two or three lines wide, situated downward and inward. The lens is pressed out at the outer side of the bridge of conjunctiva. Finally, he divides the posterior capsule, as he has formerly done. The advantages of this operation over the old are said to be, that the conjunctival bridge prevents gaping of the wound and hastens its union, at the same time lessening the dangers of prolapse of the iris and exit of vitreous; over Graefe's operation, that the exit of the lens is easier and iridectomy is avoided.

14. Mauthner's paper is a very interesting and, on some points, instructive one. Hitherto, no satisfactory explanation of the temporary blindness which has in some cases preceded permanent blindness from embolism of the central artery of the retina has been offered. Mauthner had the good fortune to observe a case which appears to offer a solution of the phenomenon. The patient had observed, on waking, one hour and a half before, a failure of sight in the left eye, which varied in amount. During a rapid superficial examination, vision sank to quantitative perception of light, and immediate ophthalmoscopic examination showed nothing but such an excessive thinning of the retinal arteries that with the upright image they could be only followed as thin red streaks a short distance from the papilla. Iridectomy was proposed, with the hope that, by producing a sudden decrease of intra-ocular pressure, the supposed embolus might be driven forward sufficiently to leave some branches of the central artery free; but, by the time the instruments and assistants were brought, the vision had again become perfect and the appearance of the retinal arteries was normal. The explanation offered is, that one end of an embolus, borne

along in the ophthalmic artery, had entered the orifice of the arteria centralis and plugged it more or less completely, but, being too large to enter the artery entirely, was again torn out by the pressure of the blood current in the ophthalmic artery, on its projecting portion, and carried on into some other of the numerous branches of the ophthalmic. There, on account of the numerous anastomoses which exist, it need have given no sign of its presence. The correctness of the diagnosis of embolism is supported by the fact of existing heart disease and the occurrence, some months later, of symptoms of embolism of a cerebral artery.

The recent investigations of Cohnheim on embolism, and the renewed investigations of Leber on the connection between the ciliary and retinal vessels, are considered to throw no light on the subject of embolism of the arteria centralis retinae. Indeed, the statement of the latter, that the connection between these vessels is only through capillaries, would only serve to render the symptoms which sometimes follow embolism of the arteria centralis more inexplicable. From the study of the symptoms and ophthalmoscopic appearances in such cases reported by Knapp, Fano, Hock, and in two which he observed himself, he believes that anastomoses of considerable size between ciliary and retinal arteries do occasionally exist before, or are formed subsequently to, the embolism.

15. Knapp reports three new observations of embolism of branches of the retinal artery. He thinks such cases are more common than has been supposed, and states that when a primary branch of the retinal artery is obstructed, there occurs superior or inferior hemiopia; when a secondary branch alone, a sector-like defect in the upper or lower half of the visual field is observed.

16. Jackson gives a *résumé* of some of the facts and opinions he has published within a year or two on matters of common interest to physicians and ophthalmologists. Under the head of epileptiform amaurosis, he treats of a class of cases in which there occurs a temporary affection of sight; either a failure of vision, or an "over-function"—development of colors, sparks, &c. Such cases are analogous to cases in which there are temporary subjective sensations of smell, and the affinities of both these temporary sensations are to epilepsy. In the cases he has seen, there have usually been other nervous symptoms, convulsions or loss of consciousness. The temporary affection of sight or smell may be called an aura; it is "part of a fit," the initial stage, and sometimes—if the fit is abortive—it will be the only symptom. Neither of the varieties of affection of vision is a localizing symptom, but if either be accompanied by an epileptiform seizure beginning deliberately in the hand, foot or cheek, it may be concluded that there is disease of the convolutions of the cerebral hemisphere opposite the side of the body on which the convulsion begins and near the corpus striatum. The fact that optic neuritis occasionally develops, and may leave permanent defective sight, shows that the association of temporary defect of vision with convulsions beginning unilaterally is not a chance one.

The combination of optic neuritis with convulsion beginning on one side, is to be regarded as of great importance, both as pointing to the locality and general nature of the disease. The neuritis alone does not aid at all in localization, but when it is combined with convulsion beginning



distinctly in one hand or one side of the face, the disease is of, or involves, convolutions supplied by the middle cerebral artery, that is, in the neighborhood of the corpus striatum. The tie between the two symptoms, he thinks, is to be found in the distribution of the cerebral arteries. In the same way, the connection between subjective sensations of smell and temporary loss of consciousness is that the anterior cerebral artery supplies the olfactory bulb and a vast tract of convolutions, as well as a part of the corpus callosum. "Speaking very generally, symptoms are to be arranged, not only according to the functional divisions of the nervous system, but sometimes according to its nutritive, at least its arterial, regions." Optic neuritis does, however, point to the general nature of the disease. "If there be no optic neuritis, the fit does not, *in all probability*, depend on tumor nor on any sort of adventitious product. But if there be also double optic neuritis, we may conclude with confidence that the disease in the region of the middle cerebral artery is tumor."

The fact that acute neuritis may exist while the patient is able to read the smallest type, and is unconscious of any disturbance of sight, is rightly insisted upon, and hence the necessity of routine examination with the ophthalmoscope. Cases in illustration are quoted, in which the discovery of optic neuritis settled the diagnosis, the other symptoms alone being entirely insufficient. The importance of attention to very slight changes about the discs is pointed out, but it is acknowledged that, at present, some of these changes cannot always be distinguished from physiological peculiarities. Whether a tumor be situated in the cerebrum or cerebellum, he believes not to have the slightest influence on the ophthalmoscopic appearances of the neuritis. Unioocular neuritis very rarely occurs, even when but one cerebral hemisphere is diseased. With regard to deafness of nervous origin, Jackson thinks it never results from tumor of the cerebrum or cerebellum, but in this statement he excludes cases in which the tumor is so placed as to press on the auditory nerve itself; there, of course, deafness results. It is proper to say here, that when the word tumor is used by the author, it appears to be used not in any specific sense, but intended to include any adventitious product.

17. Michel reports a case of great pathological interest. The patient, a boy of 15, had been for many years entirely blind. No accurate early history could be obtained, but he was said never to have had acute disease. The skull was deformed, the intellect below par. For some years before death, there was seen, in both eyes, regressive choked disc. Death was from acute affection of the lungs. The optic foramina were found contracted, the optic nerves atrophied, and the outer sheaths distended by a mass of proliferated endothelial cells, which filled the subvaginal spaces from the eyes to the foramina. In the mass were numerous onion-like balls, resembling those in canceroid of the skin, and these often contained concretions in the centre. The endothelium of the surface of the inner sheath did not appear to take part in the proliferation. The outer sheath was thickened by a similar proliferation of endothelium in its fissures.

18. Mitchell and Thomson contribute several interesting cases in which the ophthalmoscope gave valuable assistance in the diagnosis of intra-cranial disease.

19. Leber, on examination of a case of atrophy of the optic nerve  
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and tracts, in which numerous corpora amylacea were present, found that each of these was enclosed in an apparently homogeneous capsule, on which no nucleus could be seen. On one side, the capsule was prolonged into a long and fine, smooth fibre, resembling exactly the greater portion of the atrophied nerve fibres. He arrives at the conclusion that the corpora amylacea arise from the nerve fibres, though his observations did not furnish the direct proof necessary to absolutely settle the question.

20. The tumor described by Chisholm and Knapp is of much interest, since it is the only case of intra-ocular enchondroma ever reported. It had reached a diameter of two and a half inches, and was still enclosed by the sclera, from which it seems probably to have started. Nodes of both hyaline and fibrous cartilage were contained in it, and Knapp was able to trace their development from the connective tissue which surrounded and separated them.

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SIR WILLIAM FERGUSSON.—The *Saturday Review* takes the late President of the British Medical Association severely to task, for rank heresy in matters pertaining to public health. In his recent address before the association, at its annual meeting, Sir William uttered some rather startling propositions, at variance with the generally accepted dogmas concerning the relation of disease to sewage. It is scarcely to be believed that this great English authority's conviction in the matter of sewage-propagation of typhoid is fairly and fully represented by the *Saturday Review*, but the criticism is very caustic and readable. The opening sentences are as follows:—

"There is an old saying that every man in the course of his life must eat a peck of dirt, and Sir W. Fergusson, the eminent surgeon, now gives us the comforting assurance that we must wash it down with a gallon or two of dirty water. It is impossible, he says, to get absolutely pure water, and therefore it is idle to take the trouble to procure approximately pure water. As we must drink dirty water, the best thing we can do is to shut our eyes and hold our noses, and gulp it down regardless of consequences. This is really the gist of Sir W. Fergusson's address, and no more mischievous public utterance has, we venture to say, been made in our day. . . . Sir W. Fergusson has thrown all the weight of his great authority into the scale on the side of dirt and disease."

And again: "For an eminent doctor to lift up his voice against fastidiousness in regard to pure water, strikes us as pretty much the same thing as if the Bench of Bishops were to take to preaching against undue sensitiveness with regard to sin. Absolute purity, they might say, is quite unattainable; the best of us are bad enough when put to the test, and therefore it is not worth while to make ourselves uneasy about a few spots more or less."

Finally: "A little loose talk may be allowed to politicians without much fear of the consequences, but doctors, of all people in the world, should be careful what they say."

The criticism in the *Saturday Review* is pungent but logical.

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**Bibliographical Notices.**

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*Body and Mind.*—An enlarged and revised edition. By HENRY MAUDSLEY, M.D. London: Macmillan & Co. 1873. 12mo. Pp. 342.

THIS new edition of a well-known book contains the three Gulstonian Lectures, delivered before the Royal College of Physicians in 1870, with an additional one on Conscience and Organization, read at the opening of the Psychological Section of the British Medical Association in 1872. Two new psychological essays have also been added, on Hamlet and Swedenborg. The first edition was so briefly noticed in this JOURNAL that it may be well to glance at the three original lectures, as they conduct, by natural sequence, to the fourth.

Lecture I., on the Physical Conditions of Mental Functions in Health, is a careful tracing of the development of mind from the earliest and humblest manifestations of animal life. Reflex Action, Purposive Acts, Secondary Automatic Acts, Sensori-motor Acts, Education of Nerve Centres, Memory, Volition, Mental Organization, Motor Intuitions, Gesture Language, Muscular Expression, and Organic Functions and Sympathies—these are some of the running titles by which the scope of this lecture is made evident.

Lecture II. considers Certain Forms of Degeneracy of Mind, their Causation, and their Relation to other Disorders of the Nervous System. It treats of the heredity of idiocy, and Dr. Howe is quoted to prove that one-half the idiots of Massachusetts are offspring of intemperate parents. The pedigree of an idiot, traced by Morel, through four generations, showed seven or eight degenerative varieties. Many remarkable instances of theroid (beast-like) degeneracy are given in detail, which tend to support Mr. Darwin's views. The brain weights of distinguished individuals are compared with averages of civilized men, savages, Hottentots and Bushmen. The degeneracy of the insane neurosis, or temperament, is discussed and illustrated, showing the tyranny of organization over the *moral sense*, especially.

Lecture III., on the Relations of Morbid Bodily States to Disordered Mental Functions, deals with the forms of insanity more directly. Many of the terms employed are those of the attempted causal classification of Dr. Skae.

Lecture IV. is the new one, on Conscience and Organization. It is a bold and reasonably successful effort to deal with a subject which the teachers of many centuries have ignored; and to-day, many men of scientific ability, in treating it, abandon the scientific method, with a blindness to facts and reason not to have been expected of them. The higher attributes of mind cannot be dis severed from their lower and physical relations. Dr. Maudsley shows that the Greeks entertained more enlightened views of the nature of madness than prevail even at the present day. Plato, Aristotle and Hippocrates repudiated the notions of the Greek poets, that one disease was more divine than another. The latter assert that all madness is of purely physical origin, amenable to medical and moral treatment. Philosophy, which mounted so high in the Grecian era, was lost beneath waves of ignorance and superstition in the middle ages, and when a

revival of learning occurred, "scholastic subtleties and metaphysical mysticism" took its place, and prevail, more or less, to-day. Theology has made common cause with metaphysics in resisting the inroads of scientific inquiry into the domain of conscience. We have but just regained the stand-point of the Greeks, and are in position to include in our physical researches the highest functions of mind, the moral sense and the will.

Science does not propose to bridge over the gap between nerve elements and mind. It probably can never demonstrate the real nature of the mental force, nor leap from the movements of the nerve molecules to consciousness. The *how* and the *why* of certain uniformities of sequence between nervous and mental phenomena it does not even aspire to know, any more than to know the actual causes of heat, electricity or gravitation. These are all alike mysteries, but the regularity and certainty of certain sequences may be known, and the laws of the relations between matter and mind, in its highest departments, may and should be thoroughly investigated.

Dr. Maudsley's statement that Milton found no difficulty in believing that matter was capable of intellectual functions, has shocked some of his critics, but it is amply borne out by quotations, both in prose and poetry. The criminal neurosis, the criminal psychosis, and the heredity of crime are next discussed, and arguments are drawn from the frequency of moral impairment in insane families, as well as among the insane, to prove that the highest attributes of mind are, like the lowest, largely dependent on cerebral organization.

The essays are interesting and instructive, but space will not permit their consideration here.

T. W. F.

#### BOOKS AND PAMPHLETS RECEIVED.

Report of the Executive Committee of the Roxbury Charitable Society. 1873. Pp. 15.

Observations on the Surgical Treatment of In-growing Toe Nail. By George Stillwell, Surgeon, Epsom, with a pamphlet by Dr. Cotting, Boston, America. Second Edition. London: J. & A. Churchill. 1873. Pp. 12.

Evidences of Life in the Newly Delivered Child. By W. R. Atkinson, M.D. Pp. 3.

To COOK RICE.—The following is an account taken from an old number of the *Gazette des Hôpitaux*, of the method recommended by the French Academy, for cooking rice, during the siege of Paris:—

Take one cup of rice and one-fourth of a cup of water in a sauce-pan—cover and place over a good fire; after an hour the water will be evaporated and the rice cooked, tender, but dry and with the grains distinct—not in a paste; sufficient salt should be added in the first place, and care should be taken not to disturb the rice whilst cooking.

By adding a little butter, and allowing the rice to dry a little more over a gentle fire, a more delicate dish is prepared.

Rice cooked in this manner, which is the same as that employed in the East Indies, bears the same relation to the indigestible paste of the New England kitchen as does bread to boiled flour.

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**Boston Medical and Surgical Journal.**

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BOSTON: THURSDAY, NOVEMBER 13, 1873.

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**BOSTON LYING-IN HOSPITAL.**

AN institution, bearing the above name, and incorporated by the Legislature of Massachusetts, is situated at No. 24 McLean Street, in this city. Its officers are as follows: President, Charles Hamilton Parker; Vice President, Francis Boyd; Treasurer, Thornton K. Lothrop; Secretary, F. A. Hall.

Directors, Charles G. Putnam, M.D., Abbott Lawrence, Charles E. Ware, M.D., James Ayer, M.D., Thomas Hollis, Horace Dupee, M.D., William Amory, Samuel K. Lothrop, Thomas Restieaux, Uriel Crocker.

Francis Minot, M.D., John P. Reynolds, M.D., C. E. Buckingham, M.D., Consulting Physicians.

Henry Tuck, M.D., William L. Richardson, M.D., Attending Physicians.

We wish to call attention to this institution in consequence of a concern which has taken the name of Boston Lying-in Hospital, on the corner of Kendall and Tremont Streets. By what right they have assumed the name, we do not know. The list of their officers, as published in the daily papers, we give below.

Directors, James McDonough, Martin Betts, P. H. McGlynn, James McCormick, Richard Roach, Benjamin Ellison, Thomas S. Monahan, Robert Maxwell, Hubert Smith, M.D., the Hon. John Ellis, George D. Pettie and T. H. Smith, M.D.

At a meeting of the directors, a board of officers was elected as follows:—

President, J. H. Smith, M.D.; Treasurer, Robert Maxwell; Recording Secretary, James McCormack; Corresponding Secretary, Hubert Smith.

The report of the directors says, so the papers say, that during the year thirteen hundred and forty-six patients have been treated, in and out of the house, and that *in three days* previous to the annual meeting *there were two hundred and six applicants*.

We should like to call the attention of the daily press to the list of names, and to their absurd statement, which is evidently intended to advertise something.

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THOUGH we have not yet complied with the request of the *British Medical Journal* to express an opinion upon the last case of alleged death from ether in England, it should not be inferred that we have

been in doubt as to its cause. Our desire to present a careful and comprehensive view of this case, and, once for all, to elucidate this and similar occurrences, so far as we may be able, has led us to refer the matter to a gentleman, who, from his experience in the administration of ether from the date of its introduction and from his intimate knowledge of its surgical relations, is, perhaps, better qualified than any other to express an opinion upon this subject. He has kindly promised to furnish us for our next issue some remarks upon this question.

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A STEP which, in spite of its ludicrous character, is of some importance in settling the question of the admission of females to the Massachusetts Medical Society, occurred on Nov. 5th. This was the union of the New England Female Medical College to the so-called medical department (Homœopathic) of Boston University. The importance is that the graduates of the institution are excluded from all professional recognition. The ceremonies celebrating the union were novel and varied, including speeches, music and verses; but a tinge of sadness was imparted to the closing, by a lady's singing "Good night, my heart," which showed but too plainly that it was a match of interest rather than of affection.

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THE result of the State election, on November 4th, is gratifying, for it appears likely that a majority of the new legislature will be in favor of modifying, perhaps of repealing, the present obnoxious and demoralizing liquor law.

We have no hesitation in announcing our determined hostility to the present state of affairs, and hope, at the proper time, to give our reasons in detail. No one has the right to accuse us of being unfriendly to the cause of true temperance, for the law has produced nothing but opium-eating, secret drinking, hypocrisy, black mail and State constables.

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FOREIGN BODY IN THE BLADDER. EXTRACTION. PERITONITIS. DEATH.—A lead-pencil having been introduced into the urethra of a young man, aged twenty-seven years, slipped from the fingers, and disappeared in the canal and, as commonly happens in such cases, very soon found its way into the deep portion of the urethra. Subsequent attempts at extracting the pencil had the effect of pushing it completely into the bladder. Five days after the accident, the patient entered *Hôpital Saint Louis*. He was found to be in a state of great mental anxiety, and complaining of pain in the lower portion of the abdomen. Although micturition was performed without difficulty, the root of the penis, the scrotum and perineum were all greatly swollen, red and œdematous. The symptoms being urgent, perineal section was resorted to without delay by M. Péan, and the lead-pencil easily ex-



tracted. It was found to measure about four inches in length, the blunt extremity being first introduced. The extraction of the foreign body was not followed by a diminution of either the general or local symptoms, and death ensued in the course of a few hours, with the usual signs of severe peritonitis, the explanation of which was revealed by the autopsy. On the floor of the bladder, a small infundibuliform perforation was found, penetrating the entire wall, and produced evidently by the point of the pencil. This perforation had given passage to a quantity of urine which, infiltrating the tissues of the pelvis, had been the origin of the severe symptoms to which the patient had succumbed.

This example serves to illustrate the disastrous effects of sharp-pointed objects upon the mucous membrane of the genito-urinary apparatus, and the possible necessity, in similar accidents, of recurring at once to perineal section, without wasting time in attempts at extraction by the urethra, which too often have only the effect of increasing the inflammation produced by the presence of the foreign body.—*L'Union Médicale*, Aug. 21, 1873.

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## The Hospitals.

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### MASSACHUSETTS GENERAL HOSPITAL.

THE operations on Saturday last were as follows:—excision in two cases of chronic mammary tumor, and in a case of tumor of the leg; the exploration and removal of part of a carious rib, and the removal of necrosed bone from the tibia and ulna.

The first mammary tumor had grown gradually without pain. It was about the size of a hen's egg, and was quite defined and free in the substance of the gland. The patient was a married woman, twenty-six years of age. Dr. Cabot removed the growth.

The second was smaller than the one just described, but its attachment was deeper and pediculated. It had been growing two years, accompanied with pain. The patient was twenty years old and married. The tumor was excised by Dr. Bigelow, and the wound left open to forestall the deep burrowing of pus.

The tumor of the leg, in size that of a walnut, was recurrent, and had followed the removal of a fungoid growth by caustic, about a year before. It was movable, obviously based upon the skin, and was located below the tubercle of the tibia. It was removed by Dr. Cabot.

The sinus above alluded to, was situated on the left side of the back, and was the result of a gun-shot injury received at the battle of Antietam, ten years since. He had profuse hæmoptysis at the time of the injury. Numerous pieces of bone had been discharged through a fistula near the spinous processes and over the sixth rib. A probe, entered there by Dr. Bigelow, passed several inches upward to the fourth rib, where rough bone was detected on the upper edge. The sinus was largely laid open and the carious bone removed by a spherical rasp.

Dr. B. then exhibited a man with enormous distention of the internal saphenous vein. He called attention to the fact that, while there was a general distention of the cutaneous veins of the foot, in the leg the disease was chiefly confined to the main trunk. An indurated swelling of some size, occupying the saphenous opening, was supposed to be due to local inflammatory action in the vein, and was not a morbid growth. In varix, and especially so large a one, the deep veins of the leg are usually implicated, and surgical interference, whether by caustic, ligature or excision, besides sub-

jecting the patient to some risk, affords only temporary relief. As a rule, in varix, he advised no surgical operation. An elastic stocking was recommended.

Dr. Cabot operated upon the tibia of a young adult, with necrosis. The disease was central, and required extensive removal of the involucrum with a chisel and mallet. He also removed a superficial fragment from the ulna of the same patient.

H. H. A. BEACH.

#### BOSTON CITY HOSPITAL.

LAST Friday, November 7th, Dr. H. W. Williams operated for enucleation of the eye-ball. The patient had been struck, several years previously, by a fragment of an exploding shell. Besides loss of vision, he had suffered from repeated inflammatory attacks of the eye. The sensitiveness of the affected organ, shown by these renewed inflammations, gave good reason to anticipate the occurrence, sooner or later, of sympathetic ophthalmia in the other eye. On this account, enucleation was performed under ether.

The eye-ball, on removal, was found atrophied, its tunics partly disorganized, and from the ciliary region an exudation into the vitreous had taken place. There was no trace of a foreign body.

Dr. Fifield operated for necrosis following double fracture of the lower jaw. The fracture had been caused by very slight violence—a moderate blow from the fist of a companion of the patient. The usual means to secure union had failed. One fracture was near the symphysis, the other through the ramus; the former was the seat of the necrosis. The sinus was enlarged by a crucial incision, whose flaps were dissected from the bone. Several fragments of necrosed bone were readily removed, leaving a portion behind; efforts to remove the latter were attended with too much straining of the still imperfect union, and this part was allowed to remain to exfoliate.

Several cases are under treatment in the surgical wards of the City Hospital which illustrate the practical utility of Dieulafoy's aspirator. Dr. Fifield showed a case of metastatic abscess which had been cured by means of this instrument. The patient, an adult male, had been injured on the railroad, the wheel of a locomotive having greatly bruised the elbow, fracturing the external condyle and lacerating the soft parts extensively. It was decided not to amputate or resect, but to leave the case to take the chances of recovery without operative interference. Much sloughing about the injured part followed. Three days after the injury, a chill occurred, followed by typhoidal symptoms, tympanites, enlarged liver, sallowness, increased temperature, and all the symptoms of pyæmia. Then a fluctuating swelling was discovered on the right hip, behind the great trochanter. This was punctured with a fine (No. 1) needle of the aspirator, and nearly a quart of pus was withdrawn. Every morning subsequently, during the next three weeks, the aspirator was used, the matter withdrawn varying in character from laudable pus to clear serum, and gradually diminishing in amount until, at the last puncture, only three ounces came away. The abscess, then left to itself, quickly disappeared. The patient's improvement in general condition kept pace with the persistent daily evacuation of the pus, and, except ulceration at the seat of the original injury, he is now well.

Two cases of acute abscess have been similarly treated by Dr. Gay, and with similarly good results. In both instances, the abscess was located in the thigh. One originated without injury, in connection with a varicose ulcer; here, the aspirator removed, at first, three ounces of pus, then, a few days later, two ounces, then, finally, an ounce and a half. After a few days, the parts were fully restored.

The other case resulted from the blow of a fall on the hip. A week after the injury, an abscess developed, the termination of extensive inflammation of the soft tissues. The aspirator was used, and ten ounces of pus came away. After five days, the operation was repeated, and two ounces of bloody serum was discharged. Another puncture will be made, to remove the little now remaining in the greatly contracted sac.

In two cases recently, the aspirator has been employed to relieve the blad-

der in retention of the urine; one instance was the result of spasmodic stricture following a debauch, the other a case of enlarged prostate in a man eighty-six years old. The aspirator was used twice in each case, with perfect success, the puncture being made above the pubes, and causing less pain than the attempts to pass the catheter.

In all these instances, the needle used was of the smaller, if not the smallest size.

F. W. DRAPER.

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## Correspondence.

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### LETTER FROM DRESDEN; NEW HOSPITAL.

DRESDEN, Oct. 4, 1873.

MESSRS. EDITORS,—The various novelties and improvements which have been introduced into the new surgical hospital now being erected in this city, and which are highly commended by the physicians in charge, render it well worthy of a visit from passing medical men.

The general plan struck me as not unlike that adopted in the fine hospital at Leipzig, the accommodations for surgical patients consisting of a central stone building, three stories high (as yet unfinished), connected by means of covered passage-ways, with several brick pavilions, each capable of receiving thirty patients. The wards in these pavilions are capacious and well lighted, and have small bathing rooms attached, while the arrangements for regulating the temperature and ventilation are remarkably good. Each building has a double roof, and a basement, the floor of the latter being two or three feet below the surface of the ground. In each of these basements are two furnaces of moderate size, the heated air from which is conducted directly into the ward above by means of two pipes, which rise in the ward a distance of about six feet from the floor, so as not to inflict any direct draught upon the surrounding patients, and, being covered by ornamented tiles, bear a close resemblance to the ordinary German stove. The hot-air chamber communicates with the free air of the basement, and, by the aid of dampers, the supply of cool or hot air may be regulated at will. In summer, the same registers are made use of for lowering the temperature of the wards, by giving passage to the cool air of the basement. A draught is created by connecting the atmosphere of the ward with the air contained in the space within the double roof, whence it passes off into the open air. The communication between the air of the ward and the space between the two roofs is established by means of twelve iron pipes let into the wall, each pipe having two openings that may be closed at pleasure, one opening being near the ceiling and the other near the floor. In very warm weather, the air between the two roofs being heated by the rays of the sun, rises and escapes, and its place is at once supplied by the air from the ward beneath, and thus by means of the registers a direct current is established from the basement into the ward. If the heat is excessive, the cemented floor of the basement is sprinkled with cold water. The evaporation of this water, which is aided by the large open windows on each side, serves to bring down the temperature by several degrees, and the warmer the day, the more rapid will be the current of air upward. As a matter of fact, it has been found, after an experience of two summers, that in the warmest weather, the temperature of the wards could be kept in the vicinity of 72° to 74° Fahr. Of course, the arrangements above described also serve for the purpose of ventilation, but to secure even greater purity of the atmosphere, each pavilion is provided with four chimneys, three intended to carry off the smoke from the furnaces and from the smaller fire used in heating water, and one solely for ventilation. These chimneys have an iron pipe running through the middle, through which the smoke escapes, while the intervening space between the pipe and the brick sides communicates with the wards. It will be understood that a current is established between the wards and the chimneys by means of the

heat derived from the iron-smoke pipes. All the chimneys are provided with open grates, by means of which the wards may be heated and ventilated when there are no fires in the furnace.

The practical working of this system of ventilation was certainly excellent, and I found the air of the wards perfectly free from those peculiar odors that are generally considered inseparable from a hospital ward.

Yours truly, E. H. BRADFORD, M.D.

#### EXAMINATION OF WATER FROM THE WELL OF THE BAY VIEW HOUSE, AT MT. DESERT, ME.

MESSRS. EDITORS.—The following is the result of an examination of a specimen of well water received from Dr. Wm. J. Morton, and referred to by him in an article on "Typhoid Fever at Mt. Desert." (Vide the JOURNAL, Oct. 30th, p. 421.) The water was, unfortunately, received so late that it was impossible to complete the analysis in time for the publication of the results with Dr. Morton's article.

The vessel in which the water was received was tightly closed with sealing wax, so that contamination of its contents by external substances was avoided.

The water, on removal from the vessel, had a specific gravity of 1001 at the temperature of  $144^{\circ}$  R. ( $= 644^{\circ}$  F.). It was very turbid, the sediment appearing white when in suspension in the water, but after settling it had a light brown color. Its odor was vile, resembling that of bilge water, and the presence of sulphuretted hydrogen was easily distinguishable, not only by the odor, but also by the fact that a piece of bibulous paper, moistened with a solution of acetate of lead, was turned black immediately when introduced into the vessel containing the water.

A determination of the solids resulted in the following figures, calculated so as to give the number of grains contained in a United States gallon of 231 cubic inches:—

Inorganic	-	-	-	-	-	9.901
Organic and volatile	-	-	-	-	-	7.711
Total residue	-	-	-	-	-	17.612

The amount of sediment was so great as to render a layer of the water one inch in thickness non-transparent, and a microscopic examination revealed in it the presence of ordinary animalculæ, vibrios and fungi, such as are seen in liquids containing decomposing organic matter.

The above examination, although very hastily performed, gives results which prove beyond a doubt that the water is totally unfit for drinking purposes, and that it must be contaminated in some manner by drainage. The sulphuretted hydrogen must have been formed by the decomposition of some organic material which contains sulphur, such as albumen, and its presence is in itself sufficient evidence of the preëxistence of such organic material in the water.

The sediment and vile odor were developed by decomposition of the organic matter contained in the water after its introduction into the vessel, since Dr. Morton describes the water, when fresh, as "clear and sparkling."

EDW. S. WOOD, M.D.

MESSRS. EDITORS.—I desire to state that the notice of the appointment of Dr. Wm. P. Brechin as aural surgeon to the Boston Dispensary, which appeared in your JOURNAL of October 23d ult., was wholly unauthorized by me. No such appointment has been made.

Absence from the city has prevented an earlier denial of the appointment.

Yours, &c.,

A. L. HASKINS, M.D.,

Superintendent of Boston Dispensary.

264 Tremont Street, Nov. 6, 1873.

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## Medical Miscellany.

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**SMALLPOX** is stated to be prevalent in Newark, N. J.

**AMERICAN MEDICAL GRADUATES.**—The various American medical colleges have graduated this year about twelve hundred students.

The city government is taking steps towards a public park. This is as it should be, but there is one public improvement of greater urgency which must not be overlooked—that is drainage.

The American Public Health Association convened in New York on Tuesday of this week. Many interesting topics are announced for discussion during the three days' meeting.

JUST as we go to press, we learn that a death from ether is reported to have occurred on the 10th, in the practice of a dentist of this city. We have not had time to obtain many details, but we understand that the anæsthetic was undoubtedly CHLOROFORM, or a mixture of chloroform and ether.

PROF. STRUTHERS has caused a good deal of discussion in England by a paper on the Appendix Vermiformis, read at the late meeting of the British Association for the Advancement of Science. He maintains that it is useless and injurious, and consequently a vestige of a useful organ in a lower form, and consequently again, a proof of evolution. If it were useless, according to the doctrine of evolution, it would show signs of gradually disappearing, which is not the case. Its walls are full of well-developed glands, showing that it has a purpose, though we do not as yet understand it.

**BAD TEA.**—The question of spurious or injurious tea seems to be growing important. The Chinese have discovered that tea-leaves mixed with dung, iron filings and other substances, all powdered fine, suits the English market, and are sending compounds of that sort over in huge masses, of course not without connivance from some English dealers on this side. On Tuesday, it was alleged by the Sanitary Commissioners of the city (London) that no less than 10,000,000 pounds of such tea, totally unfit for human food, was in bond ready for sale. The quantity would, we believe, be greatly increased if partially adulterated tea were added to the list.—*Spectator*.

**PHARMACEUTICAL ERRORS.**—A Marseilles chemist has been condemned to pay a fine of 100 francs and damages of 200 francs for delivering a mischievously excessive dose of arseniate of soda (beyond what the physician had prescribed). The patient showed symptoms of arsenical poisoning. The apprentice who prepared the draught was acquitted.—*Brit. Med. Journal*.

AFTER attacking a large number of persons—amounting, up to September 1, to 104,000—the cholera has decreased in Hungary; but in place of it pernicious fever has occurred, and has threatened to prove formidable. It has, therefore, been suggested to retain for the present the services of the medical men who were sent into the various districts to attend the cases of cholera.—*British Medical Journal*.

**THE MUSCULAR SUBSURREX IN RELATION TO THE FETAL HEART-SOUNDS.**—At a recent meeting of the London Obstetrical Society, Dr. J. Braxton Hicks called attention to a point with regard to the diagnosis of pregnancy and the life of the foetus by means of the existence of the foetal heart-sounds, which he had not unfrequently observed in the course of his practice, but which he did not remember to have seen in print, and summed up his observations as follows. 1. The number of vibrations of the abdominal muscles in a state of half suspension can be distinctly counted, watch in hand. 2. Their number and sound are so like those of a very rapid foetal heart that they may be mistaken for them.—*British Medical Journal*.

WE learn from a recent exchange that the English government is offering iron hospitals to various unions throughout Ireland for the sums of £220 to £250 and £280, according as they are to contain twelve or twenty patients. They can be set up and made ready for occupation in a month, and are said to be, with water-closets, nurse-rooms, wash-rooms, &c., complete. If they be what they seem, these iron hospitals appear to solve the question of hospital construction, costing, we should suppose, furnished, not more than one hundred dollars a bed.—*Phil. Med. Times.*

THE Connecticut River Valley Medical Association held its October meeting at Brattleboro' on Wednesday, the 29th ultimo. Typhoid fever, being the most prevalent disease in this locality during the fall months, afforded a large theme for discussion. Among the cases presented to the Society was one of interest, where the heart was found to be transposed to the right side of the sternum. This was the congenital condition of things. The Society paid the Vermont Insane Asylum a visit, and were much pleased with its arrangements. Resolutions on the death of Dixi Crosby were passed. The address of Vice President Dunham was received with favor, and voted to be published.

E. H. PETTENGILL, Sec.

The death of the prize fighter, John C. Heenan, by phthisis will strengthen the general belief that it is an affection to which those of his calling are particularly liable. The popular theory is that it is due to the terrible pounding received on the chest during a fight. If it be true, as we think is the case, that prize fighters are more inclined to consumption than their equally dissipated associates, it nevertheless admits of another explanation. Though strong in muscle, these men, owing to the nature of their lives, have early impaired constitutions, and to such the very severe training to which they are subjected is doubly injurious.

Sayers, Heenan's last antagonist, died of the same disease.

#### NOTES AND QUERIES.

Who cuts gums? What does he do it for? Will any one give us his personal experience of its advantages over the let-alone system, if it has any, and oblige  
 Boston.

GUM LANCET.

MARRIED,—In Rockport, 5th ult., Dr. E. E. Barden to Miss Etta Gott, both of Rockport.

#### MORTALITY IN MASSACHUSETTS.—Deaths in fifteen Cities and Towns for the week ending November 1, 1873.

Boston, 111—Charlestown, 13—Worcester, 16—Lowell, 19—Cambridge, 10—Salem, 5—Lawrence, 15—Springfield, 11—Lynn, 12—Taunton, 3—Newburyport, 4—Somerville, 6—Fall River, 22—Haverhill, 6—Holyoke, 7. Total, 260.

Prevalent Diseases.—Consumption, 64—typhoid fever, 24—scarlet fever, 19—pneumonia, 12.

GEORGE DERBY, M.D.,

Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Nov. 8th, 1873. Males, 83; females, 74. Accident, 9—apoplexy, 3—anaemia, 1—inflammation of the bowels, 2—bronchitis, 2—inflammation of the brain, 2—congestion of the brain, 1—disease of the brain, 6—cancer, 3—cholera infantum, 3—cyanosis, 1—consumption, 27—convulsions, 5—croup, 3—debility, 3—diarrhoea, 5—dropsy, 2—drowned, 1—diphtheria, 3—exhaustion, 1—erysipelas, 2—scarlet fever, 8—typhoid fever, 9—gastritis, 1—disease of the heart, 4—intemperance, 1—disease of the kidneys, 1—congestion of the lungs, 2—inflammation of the lungs, 6—marasmus, 2—old age, 10—orchitis, 1—paralysis, 5—puerperal disease, 3—pyæmia, 1—pleurisy, 2—premature birth, 1—peritonitis, 2—rheumatism, 1—stricture of urethra, 1—suicide, 1—tabes mesenterica, 1—tumor, 1—whooping cough, 1—unknown, 8.  
 Under 5 years of age, 62—between 5 and 20 years, 13—between 20 and 40 years, 38—between 40 and 60 years, 18—over 60 years, 36. Born in the United States, 104—Ireland, 31—other places, 22.